Missouri Department of Natural Resources' Response to Barton Ives
March 2006

Comment 1 – AULs on Federal Property

The U.S. General Services Administration (GSA) has authority to convey federal property interests. Under that authority, GSA generally prohibits the use of environmental covenants on federal properties, but may allow environmental covenants to be placed on property at the time of transfer to a nonfederal entity or person. Because this limitation would likely preclude the use of these RBCA guidelines at any active federal installation, I request that you add the following language to the guidance so that federal agencies may avail themselves of this program.

In Section 11.3 (see RBCA Technical Guidance page 11-3) add as No. 5 on the list of AUL instruments:

The following instruments may be AULs and may be described in the Letter of Completion:

1. Environmental Covenants,
2. Engineered Controls,
3. Well Location and Construction Restrictions, and
4. Department-accepted ordinances adopted and administered by a unit of local government.
5. *Land use and/or institutional control mechanisms for federal facilities or property. After Section 11.3.4 (see RBCA Technical Guidance page 11-7) incorporate as a new section 11.3.5:*

11.3.5 An environmental covenant shall not be required for property owned by the federal government until such time that such property is transferred to a nonfederal entity or person. For property owned by the federal government, other land use and/or institutional control mechanisms may be used as part of the federal Risk Management Plan or other appropriate remedial documentation, such as: corrective action decisions, statements of basis or similar decisions, whether formalized in a permit, consent decree, order, or similar enforceable mechanism, issued pursuant to the Solid Waste Disposal Act (42 USC §§ 6901 et. seq.), to include any Missouri solid and hazardous waste laws. Other acceptable land use and/or institutional control mechanisms may include, but are not limited to, specific use and activity restrictions or conditions incorporated into base master plans, real property master plans, federal facility master land use plans, federal facility construction review and approval procedures, federal facility dig and ground disturbing activity review and approval

procedures, federal facility environmental impact analysis procedures, and/or physical controls such as fences and signs.

DNR Response: Your comments are consistent with our understanding of DOD's stance regarding AUL's and covenants on DOD property. The citation regarding the GSA's prohibition on environmental covenants is also accurate. However, these statements do not apply to the Department of Energy and may not apply to other federal agency landholders. The department agrees to add #5 as you suggest above. The department also agrees to add the following to Section 11 with respect to Department of Defense properties:

11.3.5 Department of Defense Properties

An environmental covenant may not be required for property owned by the Department of Defense (DOD) until the time that such property is transferred to a nonfederal entity or person. For property owned by the DOD, other land use and/or institutional control mechanisms may be used as part of the federal Risk Management Plan or other appropriate remedial documentation, such as: corrective action decisions, statements of basis or similar decisions, whether formalized in a permit, consent decree, order, or similar enforceable mechanism that may be issued pursuant to the Solid Waste Disposal Act (42 USC §§ 6901 et. seq.) or any Missouri solid and hazardous waste laws. Other acceptable land use and/or institutional control mechanisms may include specific use and activity restrictions or conditions incorporated into base master plans, real property master plans, federal facility master land use plans, federal facility construction review and approval procedures, federal facility dig and ground disturbing activity review and approval procedures, federal facility environmental impact analysis procedures, or physical controls such as fences and signs.

Comment 2 – Perchlorate Toxicity Values

In the January 2006 revisions to the RBCA Technical Guidance, perchlorate was added to the following Appendix E Tables:

- Table E-1 Toxicity Values of Chemicals
- Table E-2 Parameters for Dermal Contact Pathway
- Table E-3 Physical and Chemical Properties of Chemicals

While the addition of perchlorate is supported by our office, we have the following two comments:

- Table E-1 Toxicity Values of Chemicals -- In the Reference Dose (RfD) column, this table provides an Inhalation RfD for perchlorate of 7.0E-04 and indicates that this value was missing and was therefore defaulted to be equal to a value for another route of exposure. Because route-to-route extrapolation is toxicologically inappropriate, we feel it is inappropriate to identify an

inhalation value for perchlorate. Like most metals and other nonvolatile constituents, such as salts, the inhalation value for perchlorate should be left blank.

- Table E-3 Physical and Chemical Properties of Chemicals – This table identifies the perchlorate water solubility value as NA. Given that perchlorate is a salt and is very water soluble, it is recommended that the US EPA's water solubility factor of 2.0E+5 be inserted on this table in place of value NA.

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<u>DNR Response</u>: We agree with you regarding the toxicity values. The department will eliminate the toxicity values corresponding to the inhalation pathway for perchlorate. As you have pointed out, perchlorate is a salt and it will not volatilize under typical environmental conditions; therefore, the inhalation toxicity values are irrelevant. An alternative way to think of this is that, for perchlorate, the inhalation pathway will always be incomplete.

We will include the solubility of 2.0E5 mg/l in the physical/chemical table. This value is representative of ammonia perchlorate and we will include this in the footnote.